

IN THE SPECIFICATION

Please amend the specification as follows:

Replace the paragraph on page 1, between lines 5-7 of the specification with the following:

The invention further relates to a method for recording information on a write once recording medium comprising a recorded area indicator, comprising the step of recording the information on the write once recording ~~medium~~, medium.

Delete the paragraph on page 1, line 8 of the specification.

Replace the paragraph on page 1, between lines 9-16 of the specification with the following:

The DVD+R standard defines a Recorded Area Indicator. To speed up the access of the disc, the recorder needs to know in which region of the disc the last written ECC block can be found. For this purpose a bitmap is defined, based on recorded areas with the size of 4 ~~physical-sector~~ sectors, each area corresponding to

one ADIP word. 1024 ~~Physical~~physical sectors on the DVD+R disc have been reserved for this "bitmap" purpose, allowing ~~to divide to~~division of the disc into maximum 256 regions. The Recorded Area Indicators are used from the outer side of the Table Of Contents zone towards the inner side of the Table Of Contents zone. By means of "HF-detection<sub>1</sub>," the recorder can find the locations of the Recorded Area Informations and determine which contain recorded ECC blocks.

Replace the paragraph on page 1, between lines 17-19 of the specification with the following:

Each region of 640 ECC blocks between PSB=(030000) and PSN=(26053F) corresponds to one Recorded Area Indicator. All regions that contain one or more recorded ECC blocks are indicated by their ~~recorded~~Recorded Area Indicator.

Replace the paragraph on page 2, between lines 1-6 of the specification with the following:

The DVD+R standard states that the Recorded Area Indicator shall reflect the actual status of the recordings on the disc when

the disc is ejected. Issuing a close track/session command will not only close the track or session but will also cause the Recorded Area Indicator to be updated. This reduces the loss of performance as such but introduces a serious draw back in that a power down without ejection of the disc or ~~issuing~~issuing of a close track/session command would leave the Recorded Area Indicator not up to date.

Replace the paragraph on page 2, between lines 14-23 of the specification with the following:

As long as a recording is in ~~progress~~progress, the recorder knows what ECC blocks have just been recorded. A constant update is ~~there fore~~therefore not required and needs to be performed only once. This avoids the loss of performance of the recorder. To ensure that the Recorded Area Indicator reflects the actual status whenever the disc is ~~ejected~~ejected, the Recorded Area Indicator is updated at the end of the recording operation. When the disc is ~~ejected~~ejected, the recording operation has already ended and the Recorded Area Indicator is consequently updated, complying with the requirements of the DVD+R standard. Since the update command allows

an update without actually closing the track or ~~session~~ session, the disc can be ejected with a Recorded Area Indicator that properly reflects the actual status of the disc, yet allows the track or session to remain open for ~~futuer~~ future recording of data.

Replace the paragraph on page 2, between lines 24-29 of the specification with the following:

A power down of the recorder before ejecting the disc will not lead to problems because at the end of the recording operation the Recorded Area Indicator is updated, regardless of whether tracks or sessions remain open. If the recorder is powered down after the update command but before the ejection of the ~~disc~~ disc, the Recorded Area Indicator accurately reflects the actual status of the disc and the disc is ready for ejection once the recorder is powered up again.

Replace the paragraph on page 3, between lines 14-15 of the specification with the following:

~~A Method~~ In one embodiment, a method for recording information

on a write once recording medium comprising a recorded area

indicator, ~~comprising the step of~~ comprises the steps of:

Replace the paragraph on page 3, between lines 16-18 of the specification with the following:

recording the information on the write once recording medium,  
~~characterized in that the step of recording is followed by the step~~  
~~of performing only an update of the recorded area indicator in~~  
response to an update command.

Replace the paragraph on page 3, between lines 19-28 of the specification with the following:

As long as a recording is in ~~progress~~ progress, the recorder knows what ECC blocks have just been recorded. A constant update is ~~there fore~~ therefore not required and performed only at longer intervals. This avoids the loss of performance of the recorder. To ensure that the Recorded Area Indicator reflects the actual status whenever the disc is ~~ejected~~ ejected, the Recorded Area Indicator is updated at the end of the recording operation. When the disc is ~~ejected~~ ejected, the recording operation has already ended and the

Recorded Area Indicator is already updated, complying with the requirements of the DVD+R standard. Because the user or application can use the close track/session command to update the Recorded Area Indicator without closing the track or ~~session-session~~, the disc can be ejected with an open track or session yet have a Recorded Area Indicator that reflects the actual status of the ECC blocks on the disc.

Replace the paragraph on page 3, between lines 29-33 of the specification with the following:

A power down of the recorder before ejecting the disc but after the issuing of the update command will also not lead to problems because at the end of the recording operation the Recorded Area Indicator is updated. If the recorder is powered down after this but before the ejection of the ~~disc-disc~~, the Recorded Area Indicator accurately reflects the actual status of the disc and the disc is ready for ejection once the recorder is powered up again.

Replace the paragraph on page 4, between lines 3-10 of the specification with the following:

The close track/session command ends a recording operation of the disc and is issued at a very suitable moment to update the Recorded Area Indicator. The close track session command needs to be issued only once per track/session. ~~There fore~~ Therefore the performance of the recorder during recording is not affected. The close track session command is further issued when an update of the Recorded Area Indicator is required. When the Recorded Area Indicator is updated at the end of a recording regardless of whether the track or session is ~~closed~~ closed, it is guaranteed that the Recorded Area Information reflects the actual status of the disc when the disc is ejected from the recorder.

Replace the paragraph on page 7, between lines 1-10 of the specification with the following:

Close Session. If all Tracks in the last Session are not complete, generate a CHECK CONDITION status and set SK/ASC/ASCQ values to ILLEGAL REQUEST/SESSION FIXATION ERROR - INCOMPLETE TRACK IN SESSION. ~~Or~~ Alternatively, if an empty or partially recorded, reserved Tracks exist in the incomplete Session, generate CHECK CONDITION status and set SK/ASC/ASCQ values to ILLEGAL

REQUEST/EMPTY OR PARTIALLY WRITTEN RESERVED TRACK. Behavior of the closing operation is dependent on the Multi-Session field in the Write Parameters Page (05h). Closing an empty Session does not produce an error and a write to the media shall not occur.

Replace the paragraph on page 8, between lines 14-21 of the specification with the following:

For CD Closing a Session shall cause the Lead-in and Lead-out to be written for the incomplete Session. Closing a Session when the last session is closed shall not be considered an error. Closing a session when the last session is empty shall cause no actions to be performed and shall not be considered an error. For DVD-R/-RW, closing an incomplete or intermediate Session shall cause the Lead-in or Border-in and Border-out to be written for the incomplete or intermediate Session. If the Multi-Session field in the Write Parameters Page (05h) is set to 00b, a Lead-out shall be appended to last Border-out. Once the Lead-out has been written for DVD media, data ~~can not~~ cannot be further appended to the medium.

Replace the paragraph on page 9, between lines 9-13 of the



specification with the following:

In DVD+R, the invention can be implemented by utilizing an unused combination of Track and Session for DVD+R. Such a combination is Track=0 and Session=0. Currently, a drive is to report an error to this command with this parameter, but in when implementing this invention the, the drive reports success and only the RAI will be updated. The rest of the disc is not changed.

Replace the paragraph on page 9, between lines 14-15 of the specification with the following:

For ~~BluRay~~ BLURAY Write Once discs, a similar approach can be followed. In the case of ~~BluRay~~ BLURAY discs, ~~there a struture~~ structure with the same effect of the RAI can be implemented.

Replace the paragraph spanning pages 9-10, between page 9, line 28, and page 10, line 2 of the specification with the following:

The recorder 1 comprises an ~~interface 12~~ interface 2 that allows the issuing of commands ~~t~~ to the recorder through a connection 12, the transfer of data to the recorder, the retrieval

of data from the recorder and the read-out of ~~result~~ resulting messages from the recorder in response to the issued commands. The ~~interface 12~~ interface 2 transfers the data, commands and ~~result~~ resulting messages to and from the processor 3 through connection 11. The processor 3 is connected to a ~~display and~~ display 5, a keyboard unit 6 (through connection 10) and to a ~~memory 5~~ memory 4 for temporarily storing information. The processor 3 is further connected to a bit engine 7 through connection 9 that comprises means for recording data on the recording medium 8 and for retrieving data from the recording medium 8.

Replace the paragraph on page 10, between lines 18-22 of the specification with the following:

If the recorder 1 is powered down before the record carrier is ~~ejected~~ ejected, the record carrier remains in the recorder 1 comprising the updated Recorded Area Indicator. If the recorder 1 ~~recieves~~ receives the eject disc command via the ~~interface 12~~ interface 12, the recorder 1 operates the loading means (not shown) to eject the record carrier comprising the updated Recorded Area Indicator.

Replace the paragraph on page 10, between lines 26-34 of the specification with the following:

Each region of 640 ECC blocks between PSN=(030000) and PSN=(26053F) corresponds to one Recorded Area Indicator block 25a, 25b, 25c, 25d, 25e, 25f, 25g, 25h. All regions that contain at least one recorded ECC block are indicated in the corresponding Recorded Area Indicator block 25a, 25b, 25c, 25d, 25e, 25f, 25g, 25h as recorded. The Recorded Area Indicator 20 is ~~preceeded~~ preceded by Table Of Contents blocks 23 and followed by Guard Zone 1 blocks 24. As an example FIG. 2 shows three Recorded Area Indicator blocks 25f, 25g, 25h that indicate recorded ECC blocks 22, while the remaining Recorded Area Indicator blocks 25a, 25b, 25c, 25d, 25e indicate that the corresponding ECC blocks 21 are not yet recorded.

Replace the paragraph on page 11, between lines 3-13 of the specification with the following:

The first step ~~31~~, 31 include opening a session using a command when data is to be recorded ~~a session is opened using a~~

command. The second step 32 comprises the retrieval of the Recorded Area Indicator from the record carrier. The third step 33 comprises the storage of the Recorded Area Indicator in a memory. The fourth step 34 comprises the recoding of the data and the update of the Recorded Area Indicator stored in the memory to reflect that certain ECC blocks on the record carrier have been recorded. Once the recording of data is ~~completed~~completed, the fifth step 35 can be executed, which comprises the updating of the Recorded Area Indicator and if appropriate closing of the track/session. Once the close track/session command is ~~executed~~executed, the updated Recorded Area Indicator is retrieved from the memory and stored on the record carrier in the sixth step 36. This results in a record carrier with a Recorded Area Indicator that reflects the actual status of the recorded ECC blocks on the record carrier.